

"Express Mail" mailing label number EL 743 380 486US. I hereby certify that this document and referenced attachments are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR § 1.10, addressed to: Commissioner for Patents, Box Patent Application, Washington, D.C. 20231 on January 10 2001.

By: Nancy Ramos Printed: Nancy Ramos

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Michael G. Walker

Title: ANKYRIN REPEAT DOMAIN 2 PROTEIN

Serial No.: To Be Assigned Filed: Herewith

Examiner: To Be Assigned Group Art Unit: To Be Assigned

Commissioner for Patents  
Box Sequence  
Washington, D.C. 20231

### SUBMISSION UNDER 37 CFR §1.821- 1.825 SEQUENCE LISTING

Sir:

In accordance with the requirements of 37 CFR §1.821- 1.825, Applicants hereby submit one (1) diskette containing the computer-readable information for the "Sequence Listing" of the above-identified application. The diskette complies with the requirements of 37 CFR §1.824 and is IBM PC compatible using a UNIX operating system with PERL Program.

Accompanying the application is the paper copy of the Sequence Listing as disclosed in the application.

The content of the "Sequence Listing" paper copy is identical to the computer readable copy, as required under 37 CFR § 1.821(f).

Respectfully submitted,

**INCYTE GENOMICS, INC.**

Date: January 10 2001

David G. Streeter

David G. Streeter, Ph.D.

Reg. No. 43,168

Direct Dial Telephone: (650) 845-5741

3160 Porter Drive  
Palo Alto, California, 94304  
Tel. No. 650-855-0555  
Fax. No. 650-849-8886

PC-0025 CIP

<110> Walker, Michael, G.

<120> Ankyrin Repeat Domain 2 Protein

<130> PC-0025 CIP

<140> To Be Assigned

<141> Herewith

<160> 13

<170> PERL Program

<210> 1

<211> 329

<212> PRT

<213> Homo sapiens

<220>

<221> misc\_feature

<223> Incyte ID No: 5578191CD1

<400> 1

Met	Glu	Asp	Ser	Glu	Ala	Val	Gln	Arg	Ala	Thr	Ala	Leu	Ile	Glu	
1				5					10					15	
Gln	Arg	Leu	Ala	Gln	Glu	Glu	Glu	Asn	Glu	Lys	Leu	Arg	Gly	Asp	
				20					25					30	
Thr	Arg	Gln	Lys	Leu	Pro	Met	Asp	Leu	Leu	Val	Leu	Glu	Asp	Glu	
				35					40					45	
Lys	His	His	Gly	Ala	Gln	Ser	Ala	Ala	Leu	Gln	Lys	Val	Lys	Gly	
				50					55					60	
Gln	Glu	Arg	Val	Arg	Lys	Thr	Ser	Leu	Asp	Leu	Arg	Arg	Glu	Ile	
				65					70					75	
Ile	Asp	Val	Gly	Gly	Ile	Gln	Asn	Leu	Ile	Glu	Leu	Arg	Lys	Lys	
				80					85					90	
Arg	Lys	Gln	Lys	Arg	Asp	Ala	Leu	Ala	Ala	Ser	His	Glu	Pro		
				95					100					105	
Pro	Pro	Glu	Pro	Glu	Glu	Ile	Thr	Gly	Pro	Val	Asp	Glu	Glu	Thr	
				110					115					120	
Phe	Leu	Lys	Ala	Ala	Val	Glu	Gly	Lys	Met	Lys	Val	Ile	Glu	Lys	
				125					130					135	
Phe	Leu	Ala	Asp	Gly	Gly	Ser	Ala	Asp	Thr	Cys	Asp	Gln	Phe	Arg	
				140					145					150	
Arg	Thr	Ala	Leu	His	Arg	Ala	Ser	Leu	Glu	Gly	His	Met	Glu	Ile	
				155					160					165	
Leu	Glu	Lys	Leu	Leu	Asp	Asn	Gly	Ala	Thr	Val	Asp	Phe	Gln	Asp	
				170					175					180	
Arg	Leu	Asp	Cys	Thr	Ala	Met	His	Trp	Ala	Cys	Arg	Gly	Gly	His	
				185					190					195	
Leu	Glu	Val	Val	Lys	Leu	Leu	Gln	Ser	His	Gly	Ala	Asp	Thr	Asn	
				200					205					210	
Val	Arg	Asp	Lys	Leu	Leu	Ser	Thr	Pro	Leu	His	Val	Ala	Val	Arg	
				215					220					225	
Thr	Gly	Gln	Val	Glu	Ile	Val	Glu	His	Phe	Leu	Ser	Leu	Gly	Leu	
				230					235					240	
Glu	Ile	Asn	Ala	Arg	Asp	Arg	Glu	Gly	Asp	Thr	Ala	Leu	His	Asp	

PC-0025 CIP

245	250	255
Ala Val Arg Leu Asn Arg Tyr Lys Ile Ile Lys Leu Leu Leu		
260	265	270
His Gly Ala Asp Met Met Thr Lys Asn Leu Ala Gly Lys Thr Pro		
275	280	285
Thr Asp Leu Val Gln Leu Trp Gln Ala Asp Thr Arg His Ala Leu		
290	295	300
Glu His Pro Glu Pro Gly Ala Glu His Asn Gly Leu Glu Gly Pro		
305	310	315
Asn Asp Ser Gly Arg Glu Thr Pro Gln Pro Val Pro Ala Gln		
320	325	

<210> 2  
<211> 1158  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte ID No: 5578191CB1

<400> 2  
cagctcgagg gacggcacca tggaggactc cgaggcggtg cagagggcca cagcgctcat 60  
cgagcagcg 60  
ctggcacagg aggaggagaa tgagaaactc cgaggagaca cacgccagaa 120  
gctgcccattg gacttgctgg tgctggagga tgagaagcac cacggggctc agagtgcagc 180  
cctgcagaag gtgaaggcc aagagcgcgt ggcgaagacg tccttgacc tgccgggg 240  
gatcatcgat gtggggggta tcacaaacct catcgagctt cgaaagaaaac gcaaggagaa 300  
gaagcgggac gctctggccg cctcgcatga gccggcccca gagccccgagg agatcaactgg 360  
ccctgtggat gaggagaccc ttctgaaagc tgccgtggag ggaaaaatga aggtcattga 420  
gaagttctg gctgacgggg ggtcagccga cacgtgcac cagttccgtc ggacagca 480  
gcacccgagct tcctgaaag gccacatggaa attcctggag aagcttcttag ataatggggc 540  
cactgtggac ttccagatgc ggctggactc cacagccatg cattgggcct gccgggggg 600  
ccacttagag gtggtaaac ttctgcaaag ccatggagca gacaccaatg tgaggataa 660  
gctgctgagc accccctgc acgtggcagt ccggacagg caggtggaga ttgtgagca 720  
cttctatcc ctgggcttgg aaatcaatgc cagagacagg gaaggggata ctgcctgca 780  
tgacgctgtg aggctcaacc gctacaaaat catcaaactg ctgctcctgc atgggctga 840  
catatgacc aagaacctgg cagggaaagac cccgacggac ctgggtgcagc tctggcaggc 900  
tgataccgg cacccccctgg agcatcctga gccggggct gagcataacg ggctggaggg 960  
gcctaatgat agtggccgag agacccctca gcctgtgcca gcccagtgaa tgcgtgcccc 1020  
agcccgcca gctacccagg ccctctctgt gtgcagccgg agggtctaa gaatgctcc 1080  
cgagactaac tgagggccca gccttttttc tgcattatcc aggagcacat accacaaact 1140  
accacaataa aaaagctg 1158

<210> 3  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte ID No: 972118R6

<400> 3  
gacggcacca tggaggactc cgaggcggtg cagagggcca cagcgctcat cgagcagcg 60  
ctggcacagg aggaggagaa tgagaaactc cgaggagacg cacgccagaa gctgcccattg 120  
gacttgctgg tgctggagga tgagaagcac cacggggctc agagtgcagc cctgcagaag 180

PC-0025 CIP

gtgaagggcc aagagcgcgt ggcgaagacg tccctggacc tgccggggaa gatcatcgat 240  
gtggccggga tccagaacct catcgagctg cggaaagaaac gcaagcagaa gaagccggac 300  
gctctggccg cctcgcatga gccccccca gagcccgagg agatcaactgg ccctgtggat 360  
gaggagacct tcctgaaagc tgcggtgagg gggaaacatg aaggtcattt agaagttcct 420  
ggctgacggg gggtcagccg acacgtgcga ccagttccgt cgacacgac tgcaccgagc 480  
ttccctggaa gggccacatg gaaatcctgg agaagttct agataatggg gccactgtgg 540  
acttccagga tcggctggac tgcacagcca tgcatt 576

<210> 4  
<211> 253  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte ID No: 4852018H1

<400> 4  
ctggccctgt ggatgaggag accttcctga aagctgcgtt ggagggggaaa atgaaggta 60  
ttgagaagtt cctggctgac ggggggtcag ccgacacgtg cgaccagttc cgtcgacag 120  
caactgcacccg agcttcctg gaaggccaca tggaaatcct ggagaagctt ctagataatg 180  
ggggccactgt ggacttccag gatcggctgg actgcacacg catgcattgg gcctgcccgc 240  
ggggccactt aga 253

<210> 5  
<211> 569  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte ID No: 972118T6

<400> 5  
gctcctggat catgcagaaa aaaggctggg ccctcagttt gctccggggag ccatttttag 60  
gaccctccgg ctgcacacag agaggggtcg ggtagctggc tgggctgggg cacgcattca 120  
ctgggctggc acaggcttag gggctctcg cccactatca tttaggcccctt ccagcccggt 180  
atgctcagcc cccggctcag gatgctccag ggcgtgccgg gtatcagcctt gccagagctg 240  
caccaggtcc gtcggggctt ttctgtccag gttttggtc atcatgtcag ccccatgtcag 300  
gagcagcagt ttgatgattt tggatcggtt gagecctcaca gcgtcatgca gggcagtatc 360  
cccttcctg tctctggcat tgatcccag gcccaggat agaaaagtgtt ccacaatctc 420  
cacctgcctt gtccggactg ccacgtgcag cgggggtgctc agcagcttat ccctcacattt 480  
ggtgtctgtt ccatggctt gcagaagttt caccacctt aagtggcccc cgccggcaggc 540  
ccaatgcattt gctgtgcagt ccagccgt 569

<210> 6  
<211> 330  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte ID No: 7350215H1

<400> 6  
acctggcagg aaagaccccg acggacctgg tgcagctctg gcaggctgat accccggcacg 60

PC-0025 CIP

ccctggagca tcctgagccg ggggctgagc ataacgggcataatggggcct aatgatagtg 120  
ggcgagagac ccctcagccgtgccagcc agtgaatgcgtgccccagcc cagccagcta 180  
cccagccct ctctgtgtc agccggagggtcctaagaat ggctcccgagactaactgag 240  
ggcccagcccttttctgca tgatccagga gcacatacca caaactacca caataaaaaaa 300  
gctgttttg ctaattgcga tgttcatttc 330

<210> 7  
<211> 255  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> misc\_feature  
<223> Incyte ID No: 700911986H1

<400> 7  
tggaaggcac catggagggt cccgaggctgtgcagagagc cacagagctc atcgagcagc 60  
ggcttgcga ggaggaagag actgagaaac ttgcgaagagc cactcctggg aagacgtcca 120  
tggacatgtc agtgcttagag gacgagaagc gcctcggttgcagactcgt gctttacaaa 180  
aggttaaggg ccaagagcgc gtgcgcaaga catccctgga ctgcgacgt gagatcattt 240  
acgtggcgccg gatcc 255

<210> 8  
<211> 275  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> misc\_feature  
<223> Incyte ID No: 701144158H1

<400> 8  
gcacatggag ggtcccgagg ctgtgcagag agccacagag ctcatcgagc agcggcttgc 60  
cgaatgaagg agaagactga gaaacttcga agagccactc ctgggaagac gtccatggac 120  
atgctagtgc tagaggacga gaaggcctg gggtgccagatcgtgc tccgtctta caaaaggta 180  
agggccaaga gcgcgtgcgc aagacatccc tggacttgcg acgtgagatc attgacgtgg 240  
gcgggatcca gaacctata gaactgagga aaaaa 275

<210> 9  
<211> 315  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> misc\_feature  
<223> Incyte ID No: 700188047H1

<220>  
<221> unsure  
<222> 54, 80, 121  
<223> a, t, c, g, or other

<400> 9  
attctgaaa gcagcggtgg agggaaaat caaagtattt gacaagtacc tggnagacgg 60  
aggtcggca gacacctgtatgagttccgtggacagca ctgcacatcggttccctgg 120  
nggacacatg gagatactgg agaaacttcttggatggg gccaccgtgg acttccagga 180

PC-0025 CIP

tcgcctggac tgcacagcca tgcactggc ctgccgtgga ggccacctgg aggtggtaa 240  
atcttgcaaa gtcggggggc caacaccgac gtgagagaca agctatgagc actccctgc 300  
atgtggcgta ccgta 315

<210> 10  
<211> 207  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> misc\_feature  
<223> Incyte ID No: 700913268H1

<400> 10  
atcaatgcca aagacagaga aggggacagt gccctgcatt atgccgtgag actcaaccgc 60  
tacaaaatca tcaaactgct gctcttgcat ggggcagaca tggatggctaa gaatatggcg 120  
gggaagaccc ctaccgacct ggtccagctg tggcaagcag acacccggca tgccctggag 180  
caccctgaac cagaatcaga gcagaac 207

<210> 11  
<211> 328  
<212> PRT  
<213> Mus musculus

<220>  
<221> misc\_feature  
<223> Incyte ID No: g9501360

<400> 11  
Met Glu Gly Pro Glu Ala Val Gln Arg Ala Thr Glu Leu Ile Glu  
1 5 10 15  
Gln Arg Leu Ala Gln Glu Glu Glu Thr Glu Lys Leu Arg Arg Ser  
20 25 30  
Ala Pro Gly Lys Leu Ser Met Asp Met Leu Val Leu Glu Glu Glu  
35 40 45  
Lys Arg Leu Gly Val Gln Ser Pro Ala Leu Gln Lys Val Lys Gly  
50 55 60  
Gln Glu Arg Val Arg Lys Thr Ser Leu Asp Leu Arg Arg Glu Ile  
65 70 75  
Ile Asp Val Gly Ile Gln Asn Leu Ile Glu Leu Arg Lys Lys  
80 85 90  
Arg Lys Gln Lys Lys Arg Asp Ala Leu Ala Ala Ala Gln Glu Pro  
95 100 105  
Pro Pro Glu Pro Glu Glu Ile Thr Gly Pro Val Asn Glu Glu Thr  
110 115 120  
Phe Leu Lys Ala Ala Val Glu Gly Lys Met Lys Val Ile Asp Lys  
125 130 135  
Tyr Leu Ala Asp Gly Gly Ser Ala Asp Thr Cys Asp Glu Phe Arg  
140 145 150  
Arg Thr Ala Leu His Arg Ala Ser Leu Glu Gly His Met Glu Ile  
155 160 165  
Leu Glu Lys Leu Leu Glu Asn Gly Ala Thr Val Asp Phe Gln Asp  
170 175 180  
Arg Leu Asp Cys Thr Ala Met His Trp Ala Cys Arg Gly Gly His  
185 190 195  
Leu Glu Val Val Arg Leu Leu Gln Ser Arg Gly Ala Asp Thr Asn

200	205	210
Val Arg Asp Lys Leu Leu Ser Thr Pro	Leu His Val Ala Val	Arg
215	220	225
Thr Gly His Val Glu Ile Val Glu His	Phe Leu Ser Leu Gly	Leu
230	235	240
Asp Ile Asn Ala Lys Asp Arg Glu Gly	Asp Ser Ala Leu His	Asp
245	250	255
Ala Val Arg Leu Asn Arg Tyr Lys Ile	Ile Lys Leu Leu Leu	Leu
260	265	270
His Gly Ala Asp Met Met Ala Lys Asn	Leu Ala Gly Lys Thr	Pro
275	280	285
Thr Asp Leu Val Gln Leu Trp Gln Ala	Asp Thr Arg His Ala	Leu
290	295	300
Glu His Pro Glu Pro Glu Ser Glu Gln	Asn Gly Leu Glu Arg	Pro
305	310	315
Gly Ser Gly Arg Glu Thr Pro Gln Pro	Ile Pro Ala Gln	
320	325	

&lt;210&gt; 12

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;223&gt; Incyte ID No: g5420272

&lt;400&gt; 13

Met Glu Gly Pro Glu Ala Val Gln Arg Ala Thr Glu Leu Ile Glu		
1	5	10
Gln Arg Leu Ala Gln Glu Glu Glu Thr Glu Lys Leu Arg Arg Ser		
20	25	30
Ala Pro Gly Lys Leu Ser Met Asp Met Leu Val Leu Glu Glu Glu		
35	40	45
Lys Arg Leu Gly Val Gln Ser Pro Ala Leu Gln Lys Val Lys Gly		
50	55	60
Gln Glu Arg Val Arg Lys Thr Ser Leu Asp Leu Arg Arg Glu Ile		
65	70	75
Ile Asp Val Gly Gly Ile Gln Asn Leu Ile Glu Leu Arg Lys Lys		
80	85	90
Arg Lys Gln Lys Lys Arg Asp Ala Leu Ala Ala Gln Glu Pro		
95	100	105
Pro Pro Glu Pro Glu Glu Ile Thr Gly Pro Val Asn Glu Glu Thr		
110	115	120
Phe Leu Lys Ala Ala Val Glu Gly Lys Met Lys Val Ile Asp Lys		
125	130	135
Tyr Leu Ala Asp Gly Gly Ser Ala Asp Thr Cys Asp Glu Phe Arg		
140	145	150
Arg Thr Ala Leu His Arg Ala Ser Leu Glu Gly His Met Glu Ile		
155	160	165
Leu Glu Lys Leu Leu Glu Asn Gly Ala Thr Val Asp Phe Gln Asp		
170	175	180
Arg Leu Asp Cys Thr Ala Met His Trp Ala Cys Arg Gly Gly His		
185	190	195
Leu Glu Val Val Arg Leu Leu Gln Ser Arg Gly Ala Asp Thr Asn		
200	205	210

PC-0025 CIP

Val	Arg	Asp	Lys	Leu	Leu	Ser	Thr	Pro	Leu	His	Val	Ala	Val	Arg
				215					220					225
Thr	Gly	His	Val	Glu	Ile	Val	Glu	His	Phe	Leu	Ser	Leu	Gly	Leu
				230					235					240
Asp	Ile	Asn	Ala	Lys	Asp	Arg	Glu	Gly	Asp	Ser	Ala	Leu	His	Asp
				245					250					255
Ala	Val	Arg	Leu	Asn	Arg	Tyr	Lys	Ile	Ile	Lys	Leu	Leu	Leu	
				260					265					270
His	Gly	Ala	Asp	Met	Met	Ala	Lys	Asn	Leu	Ala	Gly	Lys	Thr	Pro
				275					280					285
Thr	Asp	Leu	Val	Gln	Leu	Trp	Gln	Ala	Asp	Thr	Arg	His	Ala	Leu
				290					295					300
Glu	His	Pro	Glu	Pro	Glu	Ser	Glu	Gln	Asn	Gly	Leu	Glu	Arg	Pro
				305					310					315
Gly	Ser	Gly	Arg	Glu	Thr	Pro	Gln	Pro	Ile	Pro	Ala	Gln		
				320					325					